Surely this group of the great naturalists of this country and this century must be completed by the one we have just lost, in some respects the greatest of the three. The statues of Pitt and Fox stand side by side in Westminster Abbey. Huxley and Owen, often divided in their lives, would here come together after death in the most appropriate place and amid the most appropriate surroundings."

What is now wanted is a representative committee to take the matter up; we are confident that an appeal for funds would meet with a ready response, and we are glad to know that steps are being taken in this direction. A circular signed by Dr. Foster and Sir William Flower has been issued, calling a meeting at the rooms of the Royal Society this afternoon.

NOTES.

THE meeting at which the Prince of Wales presided in St. James's Palace on Tuesday, ought to further the interests of the British School at Athens, in support of which it was held. A distinguished and representative company was present, among them being many well-known men of science. The Prince of Wales has concerned himself with the existence and welfare of the School from the time of its foundation in 1883, and we are glad to notice that in his remarks to the meeting he drew attention to the fact that the scantiness of the means provided was out of all proportion to the valuable archæological work carried on. The School only has a precarious annual income of £500, whereas the French School at Athens has an assured income of over £3000 a year, and the German School more than £2000 a year. Owing to this state of affairs, it is quite impossible for the British School to enter into competition with such undertakings as the explorations of the Germans at Olympia, the French at Delphi, the Americans at Argos, or the Greeks at Eleusis and Epidaurus. The sum required to bring England approximately into line with other nations is at least £1500 a year. Fortunately, as the Prince of Wales remarked at the meeting, there are hopeful signs that matters will soon be placed on a more satisfactory footing. A petition for support addressed to the late Government, met with a ready response; and before leaving office Sir William Harcourt took steps to use some portion of the public funds devoted to the encouragement of scientific investigation for the support of the School, and it is understood that the present Ministers are willing to confirm the action of their predecessors. One of the colleges at Cambridge, which has been most severely tried through the agricultural depression, has generously made an annual appropriation out of its reduced funds, and three colleges at Oxford have voted annual grants. The public schools are also moving in the matter. The Prince of Wales suggested that perhaps some of our City Companies, whose funds are devoted not only to local charities, but which have extended their sphere to the support of educational and scientific institutions, may see their way to encourage research in Greece; and he hoped that our colonies, which are so intimately bound up with our own culture and our higher national aspirations, will recognise the fact that all the privileges of the Athens School are open to their qualified students, and will make some effort towards securing its adequate efficiency. Lastly, he appealed to the liberality of private individuals, and expressed himself convinced that the appeal would find a response throughout the country. Every year excavation, both in Greece and elsewhere, is becoming more important to science. The following resolutions, confirmatory of the object of the meeting, were carried unanimously:—(1) "That the British School at Athens has already done excellent work during the nine years of its existence, and is well deserving of increased support." (2) "That this meeting pledges itself to use every effort to place the School upon a sound financial basis, so that in point of dignity and efficiency it may worthily represent this country among the other foreign institutes in Athens."

PROF. CURTIUS, of the University at Kiel, has been appointed successor to the late Prof. Lothair von Meyer at Tübingen.

PROF. DANIEL C. EATON, well known in botanical circles by his work on ferns, has just died at New Haven, U.S.

WE learn that M. J. Deby, one of the leading authorities on diatoms, whose magnificent collection was recently acquired by the British Museum, is dead. He was in his seventieth year, having been born at Lacken, in Belgium, in 1826.

TO the list of honours given last week should have been added Sir Bernhard Samuelson, M.P., F.R.S., who has been made a Privy Councillor, and Dr. H. D. Littlejohn, who has been made a knight. On Thursday last, Mr. Thornley Stoker, President of the Royal College of Surgeons in Ireland, and Dr. Christopher Nixon, were knighted by the Lord-Lieutenant of Ireland.

THE date of the annual meeting of the Society of Chemical Industry, which is this year to be held in Leeds, has been postponed from July 17 to July 31, in consequence of the General Election. It is not thought that any material change will have to be made in the programme.

PROF. SCHWARZ has been elected a Correspondant of the Paris Academy, in the Section of Geometry; Baron von Müller has been elected to the late Prof. Pringsheim's place in the Section of Botany, and Prof. Engelmann succeeds Ludwig in the Section of Medicine and Surgery.

WE are glad to be able to announce that the Italian Meteorological Society, which was temporarily dissolved after the death of Padre Denza, has again been reorganised, under the presidency of Count Vigodarzere, who is the proprietor of an observatory at Fontaniva. The central observatory will be at Moncalieri, as before, and we look forward to a continuation of the useful work carried on formerly by the Society.

WE are informed that King's College, London, will open next October a department for training teachers for Secondary Schools. There will be a two-years' course of technical studies combined with the preparation for the B.A. degree of the University of London. Detailed instruction in the art of teaching particular subjects will be given by the Professors of the College. Six Exhibitions of £15 are offered. Names of students should be sent in before September 16.

A REUTER correspondent at St. John's reports that the steamer *Kite* left there for Greenland on Tuesday to bring home the Peary Arctic Expedition. It is expected to return on October 1. The party on board includes Prof. Salisbury, of Chicago University, who goes to study the glaciers and geology of the region; Prof. Dyche, of the State University, Kansas, who will collect specimens of the fauna and flora; and Mr. Boutillier, of Philadelphia, who represents the Geographical Society.

THE influence of the Royal Gardens at Kew is felt in widely different regions of the world, through the men who are trained at the Gardens and sent out to various Botanic Stations. Three new appointments of men who have benefited by the Kew training, are notified in the current Kew *Bulletin*; they are Mr. C. H. Humphries, who has been made Curator of the Botanic Station of Aburi, on the Gold Coast; Mr. J. C. Moore, who has been appointed Curator of the Botanic Station at St. Lucia, in the Windward Islands, West Indies; and Mr. H. McMillan, who goes as Head Gardener to the Royal Botanic Gardens at Peradeniya, Ceylon.

MR. A. B. BASSET has sent us a letter referring to the proposed changes in the size of the pages of the Royal Society's publications. He directs attention to chapter xii. section ii. of the Statutes of the Society, empowering any six Fellows to convene a special general meeting, and suggests that such a meeting should be summoned, and the following resolutions submitted to it: (1) That this meeting is of opinion that the present form of publishing the *Transactions* should be continued. (2) That this meeting is of opinion that the present form of publishing the *Proceedings* should be continued. The resolutions are drawn up separately, so as to obtain the votes of Fellows who approve of a change being made in the form of one kind of publication, but disapprove of any change as regards the other.

In the recent death of Prof. Verneuil, France has lost one of her most eminent surgeons. His name is intimately connected with the history of contemporary surgery. At first, Assistant of Anatomy, Prosector, as well as Professor of Anatomy to the Faculty of Medicine, he devoted himself to anatomical and physiological studies, and left his mark by important works, chiefly on the heart, and on the anatomy and physiology of the venous system. Later, he formed part of that noted phalanx which, under the auspices of Lebert, with Robin, Broca, Follin, introduced histological studies into France. From this time date a series of original memoirs, notably on the demoid cysts of the face, and on the scrotal enclosure, in which he expounded new views, and established the scientific theory which is now generally adopted. Later still, when hospital surgeon and professor in the Faculty of Medicine, he introduced important methods of operation. Animated by the most ardent love of science, he knew how to communicate his enthusiasm to those around him; he had all the requisite qualities of a founder of a school. His activity showed itself by a great number of communications to learned societies of which he was a member.

The extensive science laboratories and buildings recently opened at Lille are described in detail in the *Revue Générale des Sciences*. The buildings comprise a physical institute, an institute of natural science, and an institute of chemistry, erected at a cost of £65,000. The cost of the whole work was nearly £140,000, and this has been borne by the Municipal Council and the Academy at Lille, assisted by a gift of £4000 from M. Philippart. The town of Lille has guaranteed an annual grant of £800 for twenty years, to be used in the interests of higher education, and has shown the greatest interest in the work of the new institute. The department of chemistry is divided into two parts, in which general chemistry and applied chemistry are respectively dealt with; and in each section laboratories are provided for research as well as for instruction. The physical department occupies a separate building, in which accommodation is provided for experiments of extreme delicacy as well as routine work. On account of the great stability now demanded by many physical investigations, all the research laboratories are on the ground floor; for the same reason, numerous large isolated pillars of masonry have been provided, and strong slate slabs have been fixed into the corners of the laboratories. The natural science building provides accommodation for geology, zoology, and botany; and a room is reserved for the Geological Society of the North of France. Every facility for study under good conditions appears to be offered by the new laboratories, and higher education in France will derive benefit from the increased opportunities now offered it at Lille.

The third International Agricultural Congress will take place at Brussels from September 8 to 16; hence it will clash with the meeting of the British Association at Ipswich, which begins on September 11. The Congress will be held under the patronage of the King of the Belgians, and embraces twelve sections. In the section of agricultural education the subjects for discussion include rural schools, fields for experiment and demonstration, the possibility of devising an international programme of superior agricultural study, and the professional training of farmers' sons by interchange of the young people of different districts. The section of agricultural science will embrace chemistry and physiology as applied to agriculture; the utilisation and conservation of natural manures; agricultural meteorology; experiment stations and laboratories of control for manures, foods, and seeds. The third, fourth, and fifth sections deal respectively with co-operation, legislation, and currency. The section of animal production will discuss practical questions relating to stock-breeding, selection and crossing, the improvement of breeds, and the feeding of stock in times of drought. The veterinary section will concern itself with the organisation of veterinary sanitary police and the contagious diseases of animals, including pleuro-pneumonia, anthrax, and tuberculosis. The section of plant production is to discuss the selection of seed, the cultivation of malting barley, "sidération," the cultivation of peaty and mossy soils, drainage, and irrigation. The ninth section—southern agriculture and colonisation—embraces grape and silk culture; the cultivation of flowers for perfume, of oil-yielding plants, and of coffee, tea, and sugar-cane; the agriculture of the Congo and of Tunis; and the conditions of countries to which emigrants might be sent. The tenth section takes in forest economy, the eleventh deals with pisciculture, and the twelfth with agricultural industries, such as dairying, brewing, and bee and poultry culture.

The results of a competition organised at Paris last month, by the *Petit Journal*, are of some scientific interest. Sixty thousand carrier pigeons from all parts of France, and from some places in Belgium, were released from the Eiffel Tower at known intervals and times. The first pigeon travelled a distance of 150 kilometres (93½ miles), with a velocity of 76 kilometres (47 miles) per hour. The highest average rates of flight ranged between this and 43 miles per hour for a distance of 264 miles. These rates are low compared with previous records. A distance of 600 miles has been covered at an average rate of 50 miles an hour, and in June 1860, a pigeon travelled from Blois to Dijon, a distance of 290 miles, in 4h. 46m., which gives a rate of about 60 miles per hour. There is also evidence that much higher average velocities than these have been reached.

Dr. J. Hann, Secretary of the Vienna Academy of Sciences, laid before it, on the 20th ult., an investigation on the daily range of the barometer on clear and cloudy days, especially on mountain summits. It was known that at ordinary stations the daily barometric range in clear and cloudy weather only exhibited a difference in the single daily oscillation, while the double daily oscillation remained unchanged. But a similar investigation for mountain stations had not yet been made. With this object the author undertook the tedious operation of calculating the daily barometric range at a number of mountain stations for the summer season, and found that at these the double daily oscillation remained the same in both kinds of weather. At the earth's surface the daily curve showed a much greater amplitude in clear than in cloudy weather, and a totally different epoch. The average form of the daily curve for the mountain stations is represented by the formula: $0{\cdot}48 \sin (353^\circ + x)$ on clear days, and $0{\cdot}26 \sin (101^\circ + x)$ on cloudy days. On clear days the maximum of the single daily oscillation occurs at 6h. 30m. a.m., while on cloudy days it occurs at 11h. p.m. The author also found that the differences in the daily range on clear and cloudy days corresponded entirely to the differences which exist over the land, as compared with those over adjacent seas.

A return has been issued showing the number of licensed experiments performed on living animals during 1894. The total number of persons holding licences during the year was 185, and of these 56 performed no experiments. The tables given afford evidence that licences and certificates have been granted and allowed only upon the recommendation of persons of high scientific standing, and that the licencees are persons who, by their training and education, are fitted to undertake experimental work and to profit by it. All the experimental work has been conducted in suitable places; the number of experiments performed was 3104. In more than one-third of these the animal suffered no pain, because complete anæsthesia was maintained from before the commencement of the experiment until the animal was killed. More than fifteen hundred of the remaining experiments were of the nature of hypodermic injections or inoculations. In about five hundred experiments the animal was anæsthetised during the operation, but was allowed to recover. These operations, in order to insure success, are necessarily done with as much care as are similar operations upon the human subject; and the wounds being dressed antiseptically, no pain results during the healing process.

The Geologists' Association will visit the coast of Antrim and the Mourne Mountains this summer (July 29 to August 3). The programme includes the examination of sections in sedimentary rocks ranging from the Ordovician to the Chalk, pre-Devonian gneisses, and the basalts, rhyolites, and drusy granites of the Tertiary eruptive series. The illustrative papers by Messrs. McHenry and Lloyd Praeger will shortly be issued as a pamphlet, in advance of publication in the *Proceedings*. The country to be visited is classic, and additional interest is added to it by the recent publication of two papers in the *Geological Magazine*. The first of these, in the June number, by Mr. McHenry of the Irish Geological Survey, describes valuable evidence as to the age of the trachyte (rhyolite) of the district. In a section at Templepatrick Quarry, the acid lava is seen, by the arrangement of its columnar and flow-structure, to have flowed over the surface of the Chalk, sweeping the overlying gravel before it, and piling it up against the denuded edge of a mass of basalt belonging to the *earlier* of the two basic series. As fragments of the trachyte occur elsewhere in gravels overlain by the *later* basalts, it may be said to be of "mid-basaltic" age. The second paper, in the July number, is by Prof. Cole, and deals with the nature of the acid rocks poured out from the Tardree volcano, which are said to equal in variety the better known rhyolites of Hungary.

The numbers of the *Botanical Gazette* for May and June contain a translation, by Mr. G. J. Peirce, of Prof. Strasburger's paper on the "Development of Botany in Germany during the Nineteenth Century." In the latter number there is also a very instructive article, by Mr. J. M. Coulter, on the "Botanical Work of the American Government." At present four distinct divisions of botanical work are organised under the Department of Agriculture, although other divisions also do a certain amount of work that may fairly be called botanical. These four divisions are those of botany, vegetable physiology, and pathology, agrostology, and forestry. The Division of Botany, under the general supervision of Prof. F. V. Coville, of Cornell University, is engaged in strictly scientific work, such as the working out of local floras, the examination of seeds, investigation of weeds, &c. To this department the Government appropriates, during the present year, 33,800 dollars. The division of vegetable physiology and pathology (26,300 dollars) is concerned with investigations into the phenomena of the growth of plants, and into the diseases of cultivated plants. Its chief is Prof. B. T. Galloway, University of Missouri; but investigations on behalf of the department are carried on also at the following centres:—University of Nebraska, University of Michigan, University of Illinois, Kansas Agricultural College, University of Copenhagen. The function of the Division of Agrostology (15,000 dollars) is to deal with forage plants as well as grasses, to instruct and familiarise the people with the habits and uses of these plants, to conduct investigations relative to their natural history and adaptability to different soils and climates, to introduce promising native and foreign plants into cultivation, and to identify grasses and forage plants. Its chief is Prof. F. Lawson-Scribner. The Division of Forestry, under the charge of Mr. B. E. Fernow, has at present chiefly been occupied with the study of the character and value of different timbers.

The current number of the *Journal de Physique* contains the second part of the paper, by M. P. Curie, on the magnetic properties of bodies at different temperatures (see NATURE, June 6, 1895, p. 134). The present paper deals with iron, nickel, and magnetite. In the case of iron, measurements have been made at temperatures between 20° C. and 1360° C., and for field strength of from 25 to 1350 C.G.S. units. The observations on nickel and magnetite were only made at temperatures above that at which the great change in the magnetic properties of these bodies takes place. The values obtained with iron up to about 756° C. agree with those previously obtained by Dr. Hopkinson. Above this temperature the author finds that the curves showing the relation between the intensity of magnetisation (I) and the strength of the field are straight lines passing through the origin for temperatures between 750° and 1280° F. decreases more and more slowly. At first (I) decreases to half its value for a rise of temperature of a few degrees, but between 950° and 1280° the susceptibility is almost a constant, only decreasing very little as the temperature rises. At a temperature of about 1280° the susceptibility suddenly increases by about 50 per cent., and then again gradually decreases up to 1365°. The author, with some hesitation, gives the following explanation of this behaviour:—"Up to a temperature of 860° iron behaves like any other paramagnetic body. At a temperature of about 860°, however, it begins to change into a second allotropic form, this transformation being complete at about 920°, and the iron remaining in this condition up to 1280°, and behaving like such a body as oxygen or palladium. Finally at 1280° the iron changes suddenly back to its first condition." The attractiveness of the above theory can only be appreciated by a study of the author's curves, for if the curve showing the connection between the logarithm of the susceptibility and the logarithm of the temperature is plotted, it is found that the curve between 750° and 860° would, if prolonged, form with the curve above 1280° a curve in all respects similar to the curves obtained in the case of nickel and magnetite. With nickel the author finds that the temperature of the magnetic transformation is about 340°. After this temperature the susceptibility is independent of the strength of the field, and decreases regularly and very rapidly as the temperature rises. In the case of magnetite the chief magnetic transformation takes place at a temperature of 535°. At temperatures between 550° and 1370° the susceptibility is independent of the strength of the field, and decreases regularly, and between 850° and 1360° varies inversely as the absolute temperature. The value of K (see previous note, *loc. cit.*) being given by the expression $K = \frac{0\cdot0280}{T}$ where T is the absolute temperature. From the differences exhibited by the behaviour with change of temperature of diamagnetic and paramagnetic bodies, the author considers that these two properties must be attributed to different causes.

Last week the *Pharmaceutical Journal* began the first of a new and enlarged series (the fourth). The journal, which is now in its fifty-fifth year, has done much to promote pharmaceutical organisation and progress.

The second part of the Report of the International Meteorological Congress held at Chicago in 1893, has just come to us from the United States Department of Agriculture (Weather Bureau). The papers included in the Report were communicated to the sections of history and bibliography, agricultural meteorology, and atmospheric electricity and terrestrial magnetism. Part iii. will comprise climatology, instruments and methods of observation, and theoretical meteorology.

THE most important articles in the *Kew Bulletin* for April to July, are one on the various sugar-cane diseases in Barbadoes, one on maple sugar, containing information with regard to the growth of the sugar-maple in the United States; and one on anbury, club-root, or finger-and-toe, describing the mode in which this disease is produced in a number of species of Cruciferæ by the attacks of the parasite *Plasmodiophora Brassicæ*, and the best modes of counteracting it.

THE new quarterly number of the *Journal* of the Royal Agricultural Society contains a paper on "Cross-bred Sheep," by Mr. H. J. Elwes, in which many facts of biological interest are recorded. The value of a first cross between two pure breeds is insisted upon, whilst due importance is attached to the dangers which beset the breeder should he venture beyond the first cross. Mr. Elwes is in a position to draw upon the results of long practical experience in the cross-breeding of sheep. The general improvement which the sheep of this country have undergone within recent years is attributed to the increasing resort to the services of pure-bred sires, but much remains to be done by those breeders who possess the necessary skill, patience, and energy. Another paper of scientific interest is one by Prof. G. T. Brown, C.B., on "Ringworm of Calves," which is illustrated with five original drawings. It is demonstrated that the living spores of the fungus of ringworm may be transmitted from one animal to another by means of lice. Prof. Edgar M. Crookshank contributes a popular paper on "Microbes in Health and Disease," and economic botanists will find much that is interesting in Mr. Glenny's paper on "The Onion and its Cultivation." This issue also contains a schedule of such native wild birds as are "undoubtedly beneficial to agriculture." Altogether, 38 species are enumerated, and details are given concerning their food, nests, and eggs.

THE additions to the Zoological Society's Gardens during the past week include an Anubis Baboon (*Cynocephalus anubis*, ♂), a Leopard (*Felis pardus*), two Two-spotted Paradoxures (*Nandinia binotata*), a Sharpe's Wood Owl (*Syrnium nuchale*) from Accra, Gold Coast, presented by Mr. W. H. Adams; two Red-crested Cardinals (*Paroaria cucullata*) from South America, presented by Dr. G. Fielding Blandford; a Small Hill Mynah (*Gracula religiosa*) from India, presented by Mr. W. Norbury; a Brown Capuchin (*Cebus fatuellus*) from Brazil, presented by Mr. W. E. Gibbs; a Spiny-tailed Monitor (*Varanus acanthurus*) from Roebuck Bay, West Australia, presented by Mr. Saville Kent; a Campbell's Monkey (*Cercopithecus campbelli*) from West Africa, an Egyptian Uromastix (*Uromastix spinipes*) from Egypt, deposited; two Mantchurian Cranes (*Grus viridirostris*) from North China, purchased; two Mule Deer (*Cariacus macrotis*), a Japanese Deer (*Cervus sika*), born in the Gardens.

OUR ASTRONOMICAL COLUMN.

SHORT-PERIOD VARIABLE STARS.—The recent spectroscopic observations of δ Cephei by Belopolsky (NATURE, vol. li. p. 282), and of β Lyræ by Pickering, Lockyer, and others, have shown that we have still a great deal to learn as to the cause of the light-changes in variables of short period other than those of the Algol type. In these inquiries, it has become clear that a study of the light-curves must go hand-in-hand with that of the spectroscopic changes, and we therefore welcome the publication, by Dr. Schur, of new light-curves of δ Cephei, η Aquilæ, and β Lyræ (*Ast. Nach.* 3282–83). The observations were made at Strassburg in the years 1877–85 by Argelander's method, an opera-glass providing the requisite optical aid.

In the case of δ Cephei, the observations and light-curve agree very well on the whole with those of Argelander and Schönfeld, but the interval from minimum to maximum is reduced by Dr. Schur from 1d. 14·6h. to 1d. 13·7h., and the period derived is 5d. 8h. 47m. 38·947s., or 1·027s. less than that of Argelander. There does not seem to be any ground for the idea that the length of the period is sensibly changing. Dr. Schur also obtained distinct evidence of a standstill in the light-curve in the descent to minimum. The period arrived at for η Aquilæ is about 4s. less than that of Argelander, namely, 7d. 4h. 13m. 59·318s. A very decided "hump" is shown on the descending side of the light-curve; this is not merely a halt like that in the case of δ Cephei, but an actual increase of light, commencing about 3d. 20h. after minimum, and reaching an abortive maximum about twelve hours later. The interval from minimum to maximum is 2d. 6h. The observations of β Lyræ give a light-curve of which the general form is almost identical with that given by Argelander, but the agreement of individual minimum with calculated times is not very good. To bring these into better agreement, Argelander's formula is corrected to the following: Epoch 424, Bonn mean time, 1855 Jan. 6, 15h. 28m. + 12d. 21h. 47m. 23s.·72 E + 0s. 315938 E^2 – 0·0000121 1s. E^3.

The paper gives full details of the observations and their reduction, and its value is increased by a plate showing the forms of the light-curves of the three variables in question.

THE NICE OBSERVATORY.—Vol. iv. of the *Annales* of the Nice Observatory is a monument to the industry of the director and staff of the magnificent observatory founded by M. Bischoffsheim. M. Perrotin, the director, contributes an elaborate investigation of the inequalities of the first order in the elements of Vesta, produced by the action of Jupiter, employing interpolation methods. M. Javelle furnishes full particulars of 505 new nebulæ discovered by him during 1890 and 1891 with the great equatorial of 15 inches aperture. The positions of these were determined by micrometric measures of distances from comparison stars, and awaiting accurate meridian observations of these, provisional positions for 1860 have been computed. Some of these objects are easily visible, but the majority of them are rather difficult, and others are at the limit of visibility of the Nice refractor. Star clusters have been rigorously excluded from the catalogue.

The meridian work at the observatory is particularly directed to the double stars of the Dorpat catalogue, and the already numerous stars which have been used as comparisons in the observations made with the equatorial. The period covered by the present publication is 1888 April 5 to 1889 December 23.

From May 1887 to December 1892, 26 new minor planets were discovered at Nice by M. Charlois, the last 11 by photography. A vast number of observations of these and other minor planets have also been made by M. Charlois, full details of which are recorded in the present volume. Observations of 19 comets are also included.

FOUCAULT'S PENDULUM EXPERIMENT.—The experimental demonstration of the earth's rotation, devised by Foucault in 1851, has recently been repeated at the De La Salle Training College, Waterford, on a somewhat smaller scale than in the original experiment. The weight of the pendulum bob was 19 lbs., and it was suspended by a wire 37 feet 6 inches in length. To set the pendulum in vibration, the usual method of burning the string by which the bob is tethered was employed. Thirty-three observations of the hourly motion of the pendulum plane were made during February and March of the present year, and the mean result was 11° 48′, the calculated value being 11° 53′ 37″. The time of the earth's rotation, or length of the sidereal day, thus deduced is 24h. 7m. 30s., an amount only about 11m. in excess of the true time. Foucault's observations gave 23h. 33m. 57s. as the time of rotation. Particulars of the Waterford experiment, and an explanation of the principles involved, are given by Dr. M. F. O'Reilly in *Engineering*, July 5.